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***IN THE UNITED STATES PATENT AND TRADEMARK OFFICE***

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***PATENT***

In re application of: Neal et al.

Attorney Docket No.: DEM1P001

Application No.: 09/741,958

Examiner: Robinson Boyce, Akiba K.

Filed: December 20, 2000

Group: 3628

Title: PRICE OPTIMIZATION SYSTEM

Confirmation No.: 7264

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**FILED VIA EFS**

**January 15, 2008**

***PRE-APPEAL BRIEF REQUEST FOR REVIEW***

Mail Stop: Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Appellants hereby request review of the decision of the primary examiner mailed November 16, 2007. The Pre-Appeal Panel is thanked for their review of the application.

Claims 1-16 are currently pending. The present application has been twice rejected under 35 U.S.C. 103(a) as being unpatentable over Ouimet et al (US 6,094,641), and further in view of Ouimet et al (US 6,078,893), and further in view of Ouimet et al. (US 6,308,162), and further in view of Hartman et al. (6,725,208), and further in view of Bhattacharya, (US 4,907,170).

Appellants respectfully request a pre-appeal brief review of the present application in light of the arguments raised herein. For the sake of brevity, Appellants respectfully directs the review panel to, and incorporates by reference, Appellants' August 30, 2007 response, for a complete listing of claims, as well as additional arguments for allowability that were unable to be included in this Pre-Appeal Brief for lack of adequate space.

Regarding Claims 1, 4 and 6, Appellants assert that the determining “total cost for each product in a given demand group in a given store for a given time period by computing a cost for each selected costing activity including labor, stocking time, transportation, receiving, inventory, bagging, checkout and invoicing, and wherein computing costs utilizes industry data to provide standard cost estimates” is novel and non-obvious over the cited art, alone or in any combination.

To address this, the examiner has stated that, regarding Claims 1, 4 and 6, “Ouimet '641 discloses: wherein said cost model determines *a total cost* . . . (Col. 2, lines 5-1 7, **determining the promotional cost by determining both optimum price and promotional activity, where the promotional cost represents the cost for each selected costing activity**)” (Emphasis Added).

Appellants respectfully disagree with the Examiner’s belief. Ouimet ‘641 discloses a “**promotional cost**”. The cost is not product specific, but rather dependent upon the “amount of money spent upon the promotion.” (Column 2, lines 5-10). In the present invention, as claimed in Claims 1, 4 and 6, the “**total costs**” are generated for “each product in a given demand group in a given store for a given time period by computing a cost for each selected costing activity including labor, stocking time, transportation, receiving, inventory, bagging, checkout and invoicing, and wherein computing costs utilizes industry data to provide standard cost estimates.” This is a very specific cost value **dependent upon the multiple product attributes**. See specification as filed at page 76, lines 2-17. Conversely, promotional costs are **management driven costs, substantially unrelated to the product attributes**.

Examiner responded by stating Ouimet “does disclose **variable costs due to attributes such as promotional activity** . . . this limitation is obvious since promotions can be based on attributes of a product, **for example, for buy one get one free, and the product is a cookie, a buyer would receive an additional cookie based on the fact that he or she is buying ‘cookies’, where the product being a ‘cookie’ and not a ‘doughnut’ is an attribute**”

In response to the Examiner’s argument, Appellants assert that ‘cookies’ versus ‘doughnuts’ are not product’s attributes, they are rather SKU dependent. Contrary, ‘frozen’ versus ‘canned’ are product attributes *that have effects on costs*. Speaking to the example

provided by the Examiner, a “**buy one get one free [promotion]**” cost valuation has nothing to do with if the product is a cookie or a doughnut. (Emphasis added). While manufacturer’s prices, distribution, storage and demand may all play a part in cost, being a cookie versus a doughnut is irrelevant. The kind of product has absolutely no has nothing to do with cost determination.

Additionally, Appellants respectfully assert that Ouimet ‘641 does not teach or suggest utilizing “industry data to provide standard cost estimates” as in Claims 1, 4 and 6. The present invention, as claimed in Claims 1, 4 and 6, **uses industry data to generate estimate cost variables**. Such estimations reduce data collection requirements. See the specification as filed at page 75, lines 6-12.

Conversely, Ouimet ‘641 discloses that the “**demand model is then fitted to a sales history**.” (Column 5, lines 24-25). Model fitting, which is well known, “**tunes**” a model to a data set. (Column 5, lines 40-43). Unrelated to the fitting, Ouimet ‘641 discloses “determination of the perceived prices [by] taking the original price  $p$  and converting it to a perceived price  $\rho$ .” (Column 6, lines 28-35). There is **no cost data generation** or estimation in Ouimet ‘641. Furthermore, none of the methods disclosed in Ouimet ‘641 appear to reduce data collection requirements. As such Appellants respectfully traverse the rejection.

Additionally, Appellants respectfully assert the position that “promotional cost, i.e., the amount of **money spent on the promotion**” is single faceted and inherently different than the multifaceted totality cost approach as is disclosed by the present invention. (Emphasis added). (Column 2, lines 7-8). Ouimet ‘641 appears to be concerned with “psychological effects” and “visibility”, to “tune” demand models, and never appears to suggest application beyond **psychological tuning**. (Column 1, line 55, column 2, lines 1-3, and column 4 lines 4-7). Moreover, the “promotional cost” does not appear to teach or suggest any method for determining said cost. Within Ouimet ‘641 cost data appears to simply exist. This is not an oversight by the authors of Ouimet ‘641 as they are referring to simple “promotional costs” which are likely a singular value. For example, a newspaper ad (promotion) may cost \$400. **No calculation, generation, inflection or estimation is required for such a promotion cost**. The

present invention, however, **generates a cost model** by utilizing an array of cost variables and by utilizing industry standards data to limit required input. See Claims 1, 4 and 6. This is a fundamentally different function and method than what is disclosed in Ouimet '641, and as such the Appellants respectfully assert that the limited "promotional cost" does not suggest, nor make obvious, the "costing activity including labor, stocking time, transportation, receiving, inventory, bagging, checkout and invoicing, and wherein computing costs utilizes industry standards data" as recited in Claims 1, 4 and 6.

Regarding Claims 1, 4 and 6, Appellants also assert that the "cluster[ing] said plurality of products into discrete sets of related products whereby each said set is made up of highly substitutable related products, further wherein said each said set is defined by a user such that each said set is unique to said user" is novel and non-obvious over the cited art, alone or in any combination.

In response, the Examiner has stated that "substitutable [is a] recitation of non-functional data . . . and thus carries no patentable weight." Appellants vehemently disagree. The grouping of products into "discrete sets of highly substitutable products" results in increased efficiency, accuracy and functionality of the system. Likewise, quirks in purchase behavior may also have their significance minimized by grouping products into discrete sets of highly substitutable products, as these anomalies are averaged among the group of highly substitutable products. These benefits were disclosed in the application as filed, which states "defining . . . a demand group (i.e., a group of highly substitutable products) and . . . generating attribute information (Step 1021). This product information can then be output into a separate process which can be used to define demand groups or product attributes. . . The **advantage** of such supplementary files is that they **maintain complete product information** (including information not required by the processes of the present invention) which can be accessed when needed. In addition . . . a **more streamlined (abbreviated) dataset may be used in processing**. This **effectively speeds up processing time by deleting non-critical information from the dataset.**" (Emphasis added). See page 16, line 21 to page 17, line 15.

Additionally, regarding Claims 1, 4 and 6 the Examiner has stated that “Ouimet '893 discloses: . . . further wherein said each said set is defined by a user such that each said set is unique to said user, and wherein said sets are generated by comparing product attribute information, . . . w/ col. 2, lines 19-32, shows that **a definition derived from figure-of merit functions, is selected by a user to use in fitting the model parameters** [for a consumer demand model], in this case, each group [set] is unique to said user since the user uses a certain definition for use in the selection of a model).” (Emphasis Added).

Appellants assert that tuning a demand model by a figure of merit function selected by the user does not teach or suggest the “each said **set is defined by a user** such that each said **set is unique to said user**, and wherein said **sets are generated by comparing product attribute information**” of Claims 1, 4 and 6. (Emphasis Added). Instead, selection of figure-of-merit function is performed such that parameter choice “**results in a lower value of the effective figure-of-merit.**” (Emphasis Added). (Column 2, lines 28-31).

In sum, Appellants believe that all pending Claims 1-16 are allowable over the cited art and are also in allowable form and respectfully request a Notice of Allowance for this application from the Pre-Appeal Panel. The commissioner is authorized to charge any fees that may be due to our Deposit Account No. 50-2766 (Order No. DEM1P001). Should the Pre-Appeal Panel believe that a telephone conference would expedite the prosecution of this application; the undersigned can be reached at telephone number 925-570-8198.

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Respectfully submitted,

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Reg. No. 37,491

**CUSTOMER NO. 36088**

<b>PRE-APPEAL BRIEF REQUEST FOR REVIEW</b>		Docket Number (Optional)  DEM1P001									
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]  on <u>February 15,</u>  Signature <u>FILED VIA EFS</u>  Typed or printed name <u>FILED VIA EFS</u>	Application Number  09/741,958	Filed  December 20, 2000									
	First Named Inventor  Michael Neal et al.										
	Art Unit  3628	Examiner  Robinson Boyce, Akiba K.									
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <table style="width: 100%; border: none;"><tr><td style="width: 50%; vertical-align: top; padding-bottom: 10px;"><input type="checkbox"/> applicant/inventor.</td><td style="width: 50%; vertical-align: top; padding-bottom: 10px; text-align: right;">/Kang S. Lim/ _____ Signature</td></tr><tr><td style="vertical-align: top; padding-bottom: 10px;"><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</td><td style="vertical-align: top; padding-bottom: 10px; text-align: right;">Kang S. Lim _____ Typed or printed name</td></tr><tr><td style="vertical-align: top; padding-bottom: 10px;"><input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>37,491</u></td><td style="vertical-align: top; padding-bottom: 10px; text-align: right;">925-570-8198 _____ Telephone number</td></tr><tr><td style="vertical-align: top; padding-bottom: 10px;"><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____</td><td style="vertical-align: top; padding-bottom: 10px; text-align: right;">February 15, 2008 _____ Date</td></tr></table> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p>				<input type="checkbox"/> applicant/inventor.	/Kang S. Lim/ _____ Signature	<input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)	Kang S. Lim _____ Typed or printed name	<input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>37,491</u>	925-570-8198 _____ Telephone number	<input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____	February 15, 2008 _____ Date
<input type="checkbox"/> applicant/inventor.	/Kang S. Lim/ _____ Signature										
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This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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